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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/517,541	03/02/2000	Kia Silverbrook	AUTH15US	4978

7590 07/05/2005

Kia Silverbrook
Silverbrook Research Pty Ltd
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EXAMINER

NGUYEN, NGA B

ART UNIT	PAPER NUMBER
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3628

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/517,541

Applicant(s)

SILVERBROOK ET AL.

Examiner

Nga B. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-8 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 4/15/05
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is the answer to the communication filed on April 12, 2005, which paper has been placed of record in the file.
2. Claims 1-8 are pending in this application.

Response to Arguments/Amendment

3. Applicant's arguments with respect to claims 1-8 have been considered but are not persuasive.

In response to applicant's arguments, examiner again submits that designing pMOS and nMOS transistors are driven such that they do not have intermediate resistance simultaneously during a change of state of the CMOS structure, to manipulate the secret data and operating the conventional CMOS inverters adjacent the non-flashing CMOS structures at the same time, are well known in the art and are choices of designing and operating CMOS structures in the semiconductor.

In conclusion, for the reason above, examiner decides to maintain the previous rejection based on the Park's reference (also see details below) and make this action FINAL.

4. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park, U.S. Patent No. 5,673,223.

Regarding to claim 1, Park discloses in an authentication chip in which secret data is manipulated, a method of shielding manipulations of the secret data from observation, including the steps of: operating non-flashing CMOS structures in the chip (columns 1-2 and column 4, lines 17-55).

Park does not disclose pMOS and nMOS transistors are driven such that they do not have intermediate resistance simultaneously during a change of state of the CMOS structure, to manipulate the secret data and operating conventional CMOS inverters adjacent the non-flashing CMOS structures at the same time. However, designing pMOS and nMOS transistors are driven such that they do not have intermediate

resistance simultaneously during a change of state of the CMOS structure, to manipulate the secret data and operating the conventional CMOS inverters adjacent the non-flashing CMOS structures at the same time, are well known in the art and are choices of designing and operating CMOS structures in the semiconductor. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Park's to incorporate the designed choices above for the purpose of improving the security in operation of an authentication chip in which secret data is manipulated

Regarding to claims 2-3, Park does not disclose generating continuous circuit noise to a tamper detection line and driving the conventional CMOS structures from the tamper detection line. However, generating continuous circuit noise to a tamper detection line and driving the conventional CMOS structures from the tamper detection line is well known in the art of semiconductor. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Park's to include the feature above for the purpose of generating continuous circuit noise in the conventional CMOS structures.

Regarding to claim 4, Park does not disclose driving the conventional CMOS multiple times faster than non-flashing CMOS. However, it is well known in the art to drive the conventional CMOS multiple times faster than non-flashing CMOS. This is a desired choice. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Park's to include the feature above for the desired purpose.

Regarding to claims 5-8, Park discloses an authentication chip (figures 2-3) for performing the method as discussed in claims 1-4 above, therefore are rejected by the same rationale.

Conclusion

7. Claims 1-8 are rejected.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Nga B. Nguyen whose telephone number is (703) 306-2901. The examiner can normally be reached on Monday-Thursday from 9:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Soug can be reached on (703) 308-0505.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-1113.

9. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
C/o Technology Center 3600
Washington, DC 20231

Or faxed to:

(703) 872-9326 (for formal communication intended for entry),

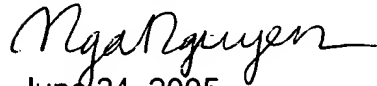
or

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(703) 308-3691 (for informal or draft communication, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, VA, Seventh Floor (Receptionist).

Nga B. Nguyen



June 24, 2005